

# **Windows 2003**

# **HP StorageWorks XP Hardware Providers quick start guide**

XP128

XP1024

XP12000

product version: 2.8

first edition (February 2005)

part number: T1634-96031

This guide provides a summary of how to install and administer HP HWP for use with HP XP disk arrays and Windows Server 2003.



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*HP StorageWorks Hardware Providers for Windows 2003: Quick Start Guide*

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# Quick start procedures

This guide summarizes hardware and software configuration and installation for the HP StorageWorks XP Hardware Providers (HWP) for Windows 2003. For detailed configuration and installation procedures as well as a technical overview and troubleshooting information, refer to the *HP StorageWorks XP Hardware Providers Administration Guide for Windows 2003*. Follow all configuration and installation instructions carefully.

**IMPORTANT NOTE: The right combination of software versions is crucial to configuring a working system.** Refer to the *HP StorageWorks Hardware Providers Supported Configurations* document and any README files accompanying the HP HWP installation files for information about compatible software versions and system configurations.

For HP Hardware Providers documentation and software downloads, see the following web location:

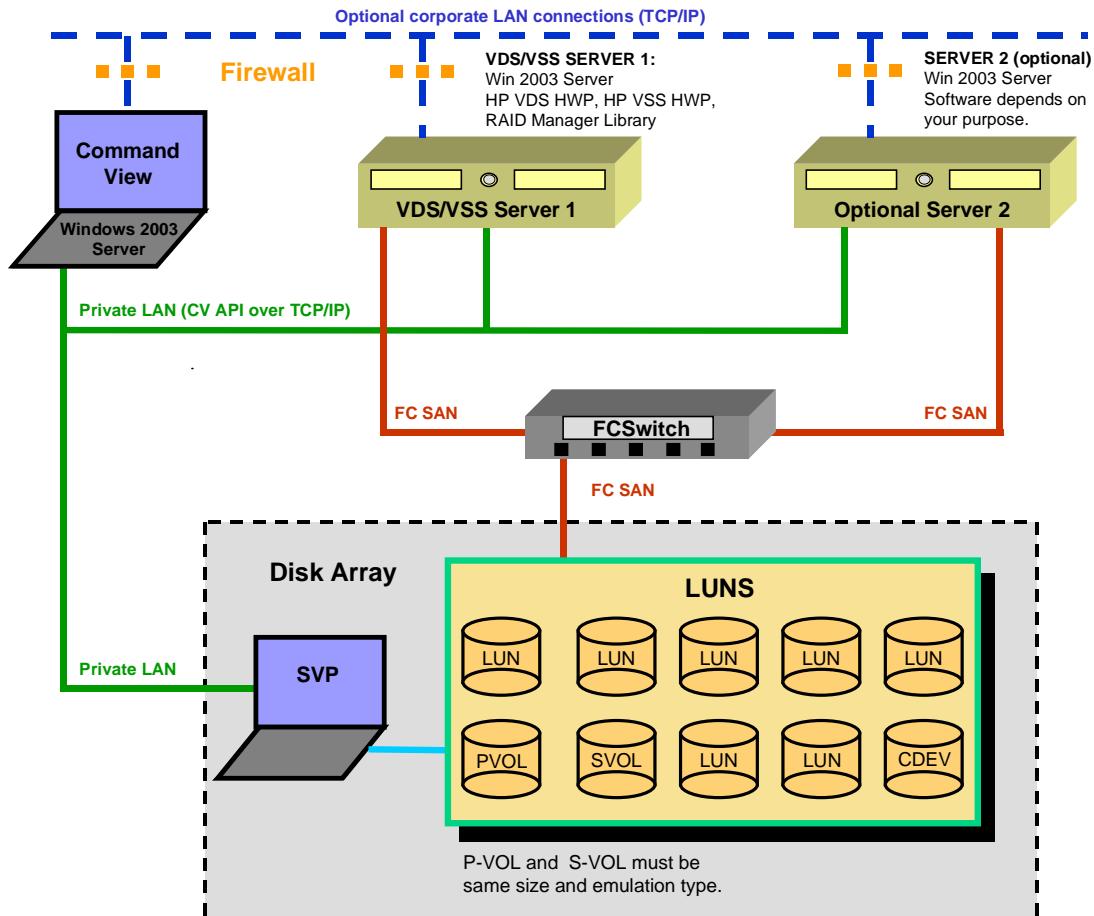
[www.hp.com/support/vssvdshwp](http://www.hp.com/support/vssvdshwp)

# Required components

The following illustration summarizes the hardware and software in a fully configured system. Note that a second server is not needed for VDS and is optional for VSS; it may be useful if you want to manage VSS backup data on the secondary volumes without burdening the primary server.

The following pages describe configuration details.

## HWP Configuration Diagram XP



## Required hardware components

- **HP StorageWorks Disk Array:** XP128, XP1024, or XP12000 with Business Copy firmware license installed by HP.
- **Windows Command View workstation** with Windows Server 2003 or Windows Server 2000 SP4 for connecting to the array. Command View, Business Copy licensing, and SNMP software must be installed.
- **Windows VDS/VSS Server** with Windows Server 2003 (VSS requires Enterprise or DataCenter Edition for transportable snapshots; VDS works with any edition). A fast 2+ GHz CPU, 1 GB of memory, and 1 GB or more of disk space are recommended. This primary server manages the primary data on the primary volumes (PVOLs) of the array and contains applications (such as Exchange or SQL), VSS/VDS, HP HWP, and RAID Manager Library software.
- **Windows Server 2 (optional)**—A secondary server *may* be connected to the array if you want to manage the VSS copies on the secondary array volumes (SVOLs) without burdening the VDS/VSS server. Depending on your purpose for this server, you may need to install the HP HWP and RAID Manager Library software and your application software.
- **Fibre Channel Host Bus Adapters (HBAs)** in each server for connecting to the disk array via a Fibre Channel SAN.
- **Fiber cables and fabric switch** to connect the hosts to the array. (A fabric switch is optional; you can use direct connections if you prefer.)
- **Ethernet network interface cards or built-in ports** in each server for connecting to Ethernet LANs.

## **Required software components**

The following software is required to run HP HWP.

**IMPORTANT NOTE: Correct software versions are crucial to operation of the Hardware Providers. Check the README file accompanying the HP HWP software for required versions.**

### **Command View management station**

- Windows 2003 Server or Windows 2000 Server with Service Pack 4 (SNMP must be enabled for SVP communication)
- Command View with Business Copy license
- Access.txt file containing server IP addresses

### **VDS/VSS Server**

- Windows Server 2003 (Enterprise or DataCenter Edition is required if you wish to transport snapshots)
- HP VDS HWP (for array management)
- HP VSS HWP (for shadow copying)
- HP RAID Manager Library XP
- Microsoft QFEs (quick fixes), if required for your OS, VDS, or VSS. Search the Microsoft website for “quick fixes” and download them.

### **Secondary Server (optional)**

- Windows Server 2003 (Enterprise or DataCenter Edition is required if you wish to transport snapshots)
- HP VDS HWP (optional, for array management from this server)
- HP VSS HWP (optional, for shadow copying from this server)
- HP RAID Manager Library XP (install if you install VSS)
- Microsoft QFEs (quick fixes), if required for your OS, VDS, or VSS. Search the Microsoft website for “quick fixes” and download them.

## Important configuration notes

The following notes will help ensure a successful configuration:

- Using multiple servers to manage primary and secondary volumes is optional. However, if you do use multiple servers, it is important that they be in the same domain to enable communication.
- Set CV NIC binding so the LAN connecting the servers and Command View has priority (listed first).
- Administrator privileges are required for all devices and software. If you do not have administrator privileges, the software and hardware will not communicate properly.
- A host group specifically named **SVOL** and containing secondary LUNs must be defined for use with VSS. This host group should not have any host paths to it.
- For VSS, the primary and secondary volumes must be the same type and size. There must be at least as many secondary volumes as primary ones. Some applications require more than one secondary volume for each primary volume.
- A command device LUN of 36 MB must be defined for each server running HWP. This LUN cannot be used to store data.
- **Port Security** must be **ON**.

## Important performance issues

The following issues can affect the performance of HP HWP:

- Excessive traffic on the Ethernet LAN. A private Ethernet LAN is recommended between the CV station, the array's SVP, and the HP HWP server(s) to prevent excessive traffic.
- Viruses that slow down network traffic. Be sure you regularly run a virus checker.
- A firewall that excessively slows traffic from the CommandView station to the servers hosting VDS/VSS. Any firewall must be open between the CV station and the HP HWP server(s).

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# Configuration Summary

Physically configure the servers and software as described below and in the manuals for those products. See the overview diagram on [page 4](#). Your HP representative may perform some installation and configuration tasks.

## Command View (CV) and SVP

- Install and configure CV on a high speed Windows workstation.
- Connect a private Ethernet LAN between the CV station and the SVP.
- Connect the corporate LAN to the CV station, if desired.
- Add host IP addresses to the CV **access.txt** file.
- Set CV network bindings to list the LAN connected to the servers first.
- Add the disk array to be managed to the list of arrays in CV.
- (*VSS only*) Add a Business Copy license to CV (if not already done).
- Add the CV IP address to the SVP **snmpagt.exe** management page.

## VDS/VSS servers

- Install Windows 2003 Server OS, software, and FC HBAs and drivers.
- Connect to the array's FC SAN and private Ethernet LAN.
- If desired, connect to the corporate Ethernet LAN.

## Disk array

- Configure array ports for fabric topology and Port Security **ON**.
- (*VSS only*) Add primary and **SVOL** host groups (**SVOL name is required**), and set Host Mode **0C** or **2C**.
- (*VSS only*) Add primary and SVOL (secondary) LUNs.
- Add a 36 MB Command Device (CDEV).
- Add WWNs to the primary host group, but NOT to the SVOL group.

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# Installation summary

Perform the following tasks to install the RAID Manager Library and HWP software on the VDS/VSS server(s):

## **Install RAID Manager Library:**

- Run **setup.exe** in the Windows/RMLIB folder within the RM Library CD or download.
- Follow the InstallShield Wizard instructions to select a destination for the library and install it.

## **Install Hardware Providers:**

- There are two HP HWP executables, one for VDS and one for VSS. You must run both executables if you want to install both HWPs.
- Run the HP HWP installation executable:  
**hp StorageWorks VDS hardware provider for XP.msi**  
and/or  
**hp StorageWorks VSS hardware provider for XP.msi**.
- Follow the InstallShield Wizard instructions to install the HWPs. Both HWPs use the same configuration utility, so installation is very similar for both:
  - Agree to the license.
  - Select a destination folder for the files and install them.
  - Log into Command View as the administrator.
  - Configure HP HWP with the list of disk arrays managed by CV.
  - Retrieve the disk number of the Command Device LUN.
  - (VSS only) Populate the HWP list of SVOLs.
  - Assign an instance number between 201 and 1000 to this HWP configuration.
- Verify installation by checking for HP HWP in **Control Panel > Add/Remove Programs**. Also run DiskRaid and use the “list provider” and “list subsystem” commands to verify operation.

### **Install Microsoft QFEs:**

Microsoft may have QFEs (quick fixing engineering patches) that you need to install to update the OS, VDS, or VSS software. See the HP HWP README file for details, and search the Microsoft website. In some cases, these QFEs may be required in order for HP HWPs to work.

### **Uninstall Hardware Providers:**

If you need to uninstall HWP, you can use either of two methods:

- Use Windows **Control Panel > Add/Remove Programs**.
- Run the HWP executable again. If HWP is already installed, the wizard offers to uninstall it.